- a. providing an aqueous mixture of
- i) a pharmacologically active, therapeutic material selected from the group consisting of proteins, peptides, nucleosides, nucleotides, dinucleotides, and oligonucleotides, and
- (ii) a carrier that is water-soluble or water-swellable, and, that when anhydrous, can exist as a glass with a glass transition temperature (Tg) above about 20° C,
  - b. spraying into a hot gas stream at an inlet temperature from 80° C to 300 ° C droplets of the aqueous mixture from (a),
  - c. drying said droplets by passage through said gas stream to form a powder,
  - d. optionally subjecting the powder from (c) to further drying, to thereby obtain as a result of steps (a) through (c), a glassy powder having a moisture content from about 3% to about 9% by weight and a Tg above about 30° C.
  - 16. (New) The method of claim 15, further comprising the step of determining the Tg of the glassy powder of step (d).
  - 17. (New) The method of claim 15, wherein said aqueous mixture is a solution.
  - 18. (New) The method of claim 15, wherein said aqueous mixture is a suspension.
- 19. (New) The method of claim 15, wherein said inlet temperature ranges from 100 ° C to 300° C.
- 20. (New) The method of claim 15, wherein said inlet temperatures ranges from 100° C to 250 ° C.

- 21. (New) The method of claim 15, comprising the step of subjecting the powder from c. to further drying.
- 22. (New) The method of claim 15, comprising the step of subjecting the powder from c. to further drying at sub-atmospheric pressure.
- 23. (New) The method of claim 15, wherein the glassy powder from step d. has a Tg above  $50\,^{\circ}$  C.
- 24. (New) The method of claim 15, wherein the carrier, when anhydrous, possesses a Tg of at least about 40° C.
- 25. (New) The method of claim 15, wherein the carrier, when anhydrous, possesses a Tg of at least about 50° C.
- 26. (New) The method of claim 15, wherein the carrier, when anhydrous, possesses a Tg from about 50° to 200 °C.
  - 27. (New) The method of claim 15, wherein said gas stream comprises air.
  - 28. (New) The method of claim 15, wherein said gas stream comprises nitrogen.
- 29. (New) The method of claim 15, wherein said carrier comprises at least 20% by weight of the glassy powder.
- 30. (New) The method of claim 15, wherein said carrier comprises at least 30% by weight of the glassy powder.
  - 31. (New) The method of claim 15, wherein said carrier comprises at least 50% by weight

of the glassy powder.

- 32. (New) The method of claim 15, wherein the carrier is a polyhydroxy compound.
- 33. (New) The method of claim 15, wherein the carrier is selected from the group consisting of carbohydrates, sugars, proteins and protein hydrolysates.
- 34. (New) The method of claim 15, wherein the carrier is selected from the group consisting of carbohydrate derivatives, chemically modified carbohydrates, synthetic polymers, and sugar copolymers.
- 35. (New) The method of claim 15, wherein said carrier comprises a mixture of carriers that are each water-soluble or water-swellable, and, that when anhydrous, can exist as a glass with a glass transition temperature (Tg) above about 20° C.
- 36. (New) The method of claim 35, wherein said mixture of carriers are miscible as a solid solution.
- 37. (New) The method of claim 15, wherein said aqueous mixture contains from about 10 to 250 grams per litre of the carrier.
- 38. (New) The method of claim 15, further comprising the step of storing the glassy powder at ambient temperature for a period of at least 30 days.